

R1/3

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Charter Fishing Vessel *Crimond*, BCK118

Report

22 January - 2 February 1990

Personnel

| | |
|------------|-----|
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Objective

To continue to study the separation of cod from flatfish by observing their behaviour to a new design of separating panel using the Remote Controlled Television Vehicle (RCTV).

Narrative

The *Crimond* was loaded on Saturday 20 January in Buckie and the cabling for the RCTV was completed. The rockhopper trawl was rigged and fitted to the net drum on Monday 22 January. The crane required modification to handle the RCTV before it was acceptable for work.

The vessel worked daily from Buckie along the south side of the Moray Firth. Opportunities were taken to launch the RCTV whenever the sea state decreased sufficiently to handle the vehicle from the stern of the vessel. Strong to gale force winds prevailed during the whole period of the exercise making it difficult to venture too far off shore.

On Friday 2 February the vessel was off loaded at Buckie and the trawl gear and scientific equipment were returned to Aberdeen.

Results

Separation of haddock and whiting from the main catch was achieved by fitting the leading edge of the separator panel directly above the rockhoppers. The strops were set at a length of 75 cms and were positioned at each end of the hopper bosom.

The lower level or compartment of the trawl was fitted with a secondary separating panel which had been slightly modified from the design in May 1988. The leading edge started a few metres ahead of the codend and was now fitted to run without the necessity of attaching strops. Strops tend to pull the belly sheet up to form pockets. The longitudinal edge of the lower or secondary separator was also attached to the selvedge, splitting the lower codend into 2 compartments in the hope of separating cod into the top level and flatfish into the lower one. From the television pictures the shape of the separator panel was poor with the belly rope under the net too tight, pulling the belly sheet up to touch the separator panel. When belly rope was adjusted, the leading edge of the separator was then found to be too tight and a number of adjustments had to be made to achieve a good shape to both the belly and separator.

In an attempt to catch cod, trawling was conducted over very hard grounds and this may have affected the behaviour of the netting by opening and closing up the space between the belly and separator panel and thus the behaviour of the fish.

Separation of haddock and whiting into the top codend was excellent, achieving the desired result.

| | Top codend | | Bottom codend | | | |
|---------|------------|---------|---------------|---------|-------------|---------|
| | % | Numbers | Top level | | Lower level | |
| | | | % | Numbers | % | Numbers |
| Haddock | 91 | 770 | 7 | 62 | 2 | 15 |
| Whiting | 86 | 354 | 10 | 39 | 4 | 17 |

Using this unstrapped separating panel in the lower codend, and making direct observations using the RCTV, the height of the panel was estimated to range between 10-30 cms. The leading edge of the separating panel was raised to give a lower opening of approximately 45 cms but still flatfish were found in the same quantities in the upper level.

| | Bottom codend | | | |
|--|---------------|---------|-------------|---------|
| | Upper level | | Lower level | |
| | % | Numbers | % | Numbers |
| Cod | 50 | 28 | 50 | 28 |
| Lemon sole | 35 | 135 | 65 | 251 |
| Plaice | 35 | 481 | 65 | 892 |
| Angler | 78 | 35 | 22 | 10 |
| Common dab | 39 | 314 | 61 | 491 |
| Others (witch, skate, catfish, megrim) | 44 | 68 | 56 | 86 |

The observations on the behaviour of the separating panel have been recorded on video tape for subsequent detailed analyses.

J Main

4 April 1990